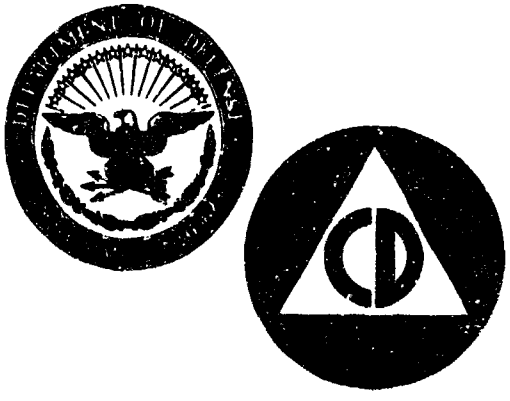

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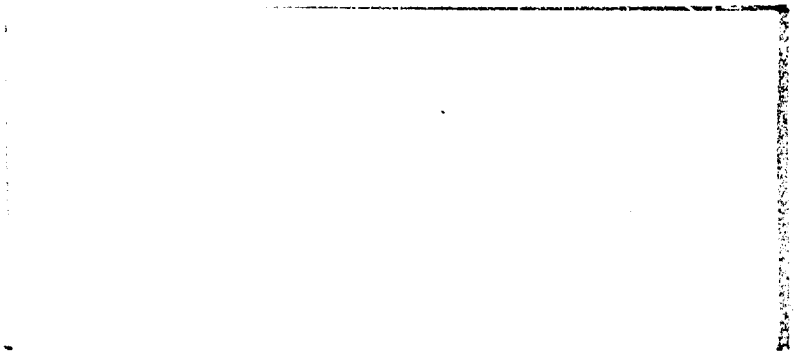

SUMMARY OF STUDIES OF PUBLIC ATTITUDES TOWARD AND INFORMATION ABOUT CIVIL DEFENSE

by

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RESEARCH REPORT NO. 8

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This is a summary of the state of research findings on which field work was completed in 1962. The reports from which the summary has been taken have been reviewed and released by OCD. The views, conclusions or recommendations included in the summary and in the original reports do not necessarily reflect the official views or policies of the Office of Civil Defense.

Systems Evaluation Division
RESEARCH DIRECTORATE
OFFICE OF CIVIL DEFENSE

PREFACE

In the review and evaluation of research reports and findings, we occasionally have requests to share selected studies with the civil defense operating staff at the State and local level. Recently we were requested to summarize the results of four studies of public attitudes, levels of knowledge, and adaptive behavior for a wider audience than we feel it useful to provide the research reports. We have, therefore, undertaken this summary of the salient findings of the studies completed last year.

The surveys being reported were undertaken for specific research objectives in which the measurement of attitudes was only incidental to our objectives. However, the findings of the studies are consistent with each other and with our general assessment of the state of our knowledge in this area. We are now reviewing preliminary results of other studies which will be fully analyzed and reported by late fall and these studies are also consistent with our summary. We have just received preliminary results of a national probability survey completed in late June and early July 1963. A cursory review of these data indicate a more optimistic picture of general public support for the present civil defense shelter program than was indicated by past studies. These data clearly indicate that public attitudes while favorable toward present shelter policy are not intense. The complete analysis and reporting of survey research takes time, however, we should have a report of this survey by late fall.

It is not our plan to reproduce and distribute the four reports used as a basis for this summary. For those desiring more complete information a limited number of reports are available to authorized requesters through the Defense Documentation Center, Cameron Station, Alexandria, Va. A few copies are available on a loan basis from the Office of the Adjutant General, Department of the Army, Attn: AGAL-CD, Washington 25, D. C.

We express our appreciation to a number of people who have made this summary possible. Dr. David K. Berlo, and his staff at Michigan State University, completed two of the studies. Dr. Jiri Nehnevajsa, and his staff at the University of Pittsburgh, made

a unique contribution in their crash study at the time of the Cuban crisis. They designed a study, completed the field work and provided us a report in a period of ten days. This was a volunteer research effort. Dr. Robert J. Wolfson of RAND (formerly of C-E-I-R, Inc.), Dr. John Y. Lu and Leo Reeder of C-E-I-R, Inc., were responsible for the fourth study reported. Mr. John F. Devaney contributed many ideas and has been a source of inspiration and guidance in the general development of the research program. An enthusiastic summer student, Leonard Chazen, has worked diligently and long in developing this summary.

It is our plan to provide periodic summaries of our research findings in this area. We hope you will find this information useful.

PURPOSE

This is a synoptic report on the state of public opinion, levels of knowledge, and attitudes toward civil defense. It will summarize the results of four surveys conducted in 1962 and will provide a brief background statement of our past survey research program.

RATIONALE FOR ATTITUDE SURVEYS

Surveys of attitudes, levels of knowledge and general adaptive behavior in civil defense has been undertaken periodically. The basic purpose of these surveys have been to (1) provide civil defense planners with assessments of the feasibility and likely cost/effectiveness of alternative civil defense systems, and (2) provide a means of periodic measurement of effectiveness of public information and training and education programs.

The objective of civil defense is to improve the probability of survival of the population and the recovery of the nation from the effects of nuclear and other forms of attack. It is concerned with measures to counter these effects and the organizational, public education, training, and other actions to support these measures. In order to be fully effective, countermeasure systems usually require active support by segments of the population. Each countermeasure system usually has its implementing audience.

Attitudes, values, levels of knowledge, and willingness to participate in learning countermeasure actions tend to limit the effectiveness of civil defense programs. The assessment of these factors is important in the choice of future systems and in the selection of programs for implementation of these program alternatives.

In relation to future planning, the reader will readily recognize that the function of the agency research program is to provide a continuous exhaustive analysis of the full range of possible future vulnerabilities, strategic environments, and civil defense program requirements. Such an assessment results in the definition and description of feasible civil defense

systems. One aspect of this assessment is the likely acceptance and response of the population to the proposed systems.

A second and perhaps more important aspect of surveys is the development of a system to provide needed feedback for improving effectiveness of communication strategy, organizational and promotional efforts. Under Section 201 (f) of Public Law 920, the Office of Civil Defense is to, "publicly disseminate appropriate civil defense information by all appropriate means." In support of this function and as a part of the systems analysis research effort, we have undertaken a periodic but continuing analysis of attitudes, levels of knowledge, adaptive behavior of the various publics participating in civil defense programs. The studies focus on various programs and on the audiences we are trying to inform and involve in these efforts.

A basic research tool used in accomplishing these objectives is the attitude survey. Such surveys are used for other purposes than the measurement of opinions, such as measurement of communication effectiveness, and studies of the social action and decision making processes associated with the adoption at the local level of civil defense programs. For all studies involving surveys we have attempted to develop sampling techniques which would allow us to generalize the results of the surveys to wider audiences. Surveys, in addition to accomplishing our prime objectives, help us isolate and describe salient attitudes, levels of knowledge and behavior associated with our program. It is with the view of sharing this aspect of our research results with a wider audience that we have summarized the studies.

BACKGROUND OF CIVIL DEFENSE SURVEYS

From its very beginning the civil defense program has been subjected to speculative and journalistic interpretations of its standing with the public.[1] Since the transfer of civil defense activities to

[1] These arguments are reviewed in: Jiri Nehnevajsa, Civil Defense and Society (Pittsburgh, 1963)

the Department of Defense, the rate of speculation has increased. Numerous small private surveys of attitudes find their way into the public media and become the basis of generalizations about the total population. In reality, of course, general statements about public attitudes require a much larger population sample. This paper is intended to provide a synopsis of current public attitudes toward civil defense, based on a population sample of adequate size.

Historically, the first Federally-financed study of public attitudes toward civil defense was undertaken in 1950, shortly before the creation of the civil defense agency. This study included respondents in eleven of our largest cities. In 1951 a second study extended the sample to include suburban areas surrounding these cities. In 1952 the first national probability survey was completed. A fourth study was undertaken in 1954 and used a sample of the national adult population. A few days after the launching of "Sputnik" in 1957, the Government sponsored a fifth study, particularly concerned with the meaning of this scientific achievement for civil defense. The sixth study, conducted in October and November 1961, sponsored by OEP, attempted to measure salient cold war attitudes as well as attitudes toward civil defense.

CURRENT ATTITUDE STUDIES

This paper will summarize the results of four studies conducted in late 1961 and 1962 -- a national probability survey, and three local samples. These data were gathered in late December 1961, June 1962, October 1962, and December 1962. Together they represent a sample of 7,200 people; the major part of this synopsis is accounted for by two of the reports in which 5,800 people were interviewed. Although the researchers used scientific sampling techniques in three of the surveys, the results are not completely comparable, because the questions were not identical in all the studies. Once the basic analyses were completed, however, the conclusions were similar. It is on this basis that the findings have been compared.

In the summary that follows we will not attempt to attribute the findings to each study in all instances. The general overview of attitudes is drawn from a series of studies conducted since 1950. A description of the individual studies follows.

MICHIGAN STATE UNIVERSITY STUDY

Michigan State University is studying the variables associated with the communication processes in civil defense.[2] In this study we are primarily interested in discovering the kind of people who read selected civil defense publications and the impact on those who read them -- in short, a study of communication effectiveness. A representative sample of respondents were selected in eight cities specifically selected on the basis of their size and location. The field work was undertaken in December 1961 and includes the data from telephone interviews in which 3, 514 respondents were questioned.

Because of the nature of the sample, we cannot project the data reported to the total population with any statistical rigor. It is our judgment and that of the contractor, however, that the data are useful in assessing public awareness of civil defense issues. We say this for the following reasons: (1) the results from the eight city tests were surprisingly consistent; (2) several questions are the same as the ones used in the national probability surveys and the results are consistent with the national surveys; (3) the national survey data, described later, demonstrated few differences in public attitudes that were attributable to community size or geographical location; (4) much of the analysis concerns relationships between two variables rather than a straight presentation of attitude and knowledge levels. Typically, more confidence can be placed in the probability that such relationships will hold for other respondents.

Largely as a result of some of the findings of the above study, a national probability survey was undertaken in June 1962. Michigan State University prepared the questionnaire and analyzed the data. Elmer Roper and Associates conducted the interviews of two thousand adult Americans.[3] The findings included indices of public attitudes

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[2] Fallout Protection Booklet -- A report of public attitudes toward and information about civil defense. Dr. David K. Berlo, Michigan State University, Department of Communication, College of Communication Arts, April 1963.

[3] The Public's Opinions on Existing or Potential Fallout Shelter Programs. David K. Berlo, Michigan State University, Department of Communication Arts. College of Communications. September 1962.

toward the probability of nuclear war, the utility of fallout shelters, and the desirability of various elements of the shelter programs of the Office of Civil Defense.

UNIVERSITY OF PITTSBURGH STUDY

In the late summer of 1962 we were discussing the possible application to civil defense of a research methodology developed by Columbia University and the University of Pittsburgh to compare the impacts of actual and perceived events. This type of research had been recommended to us by the staff of the Air Research and Development Command, Air Force Office of Scientific Research. The University of Pittsburgh developed a research plan designed to demonstrate the applicability of this methodology to civil defense surveys. While this planning was under way the Cuban crisis broke.

The University on their own initiative and funding went into the field immediately and collected data between the evening of the President's "Quarantine" speech and the day on which the public learned of the official Soviet response. Since the passage of the crisis, subsequent inquiries have been conducted to establish the effects of the changing world scene on expectations about Cuba, the cold war, civil defense, Berlin, disarmament, and other salient issues. We will consider in this paper only those expectations which have direct relevance to civil defense.[4]

C-E-I-R STUDY

The fourth study is a survey of attitudes connected with the shelter adoption process in one West Coast and one East Coast community. The administration's announcement of a new civil defense shelter policy in the summer of 1961 occurred at the same time as the Berlin crisis. These two events caused widespread national debate about civil defense and fallout shelters. On a local level it led to many proposals for community-wide public shelter programs. OCD undertook two case studies of the adoption diffusion, social action, and local decision making processes associated with the resolution of community shelter programs.

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[4] The Cuban Crisis: Meaning and Impact by Jiri Nehnevajsa and Morris I. Berkowitz, Department of Sociology, University of Pittsburgh, October 30, 1962.

As one part of the research effort, the contractor, C-E-I-R at Beverly Hills, California, selected a sample consisting of a general population group and a leadership group, and including 711 people in the two communities. The same questionnaire was used to interview both groups. Another unusual research opportunity occurred about midway through the data gathering phase of the West Coast Survey. The Cuban crisis broke at this time, and had such an impact on the audience that it was necessary to develop a group of new questions relating to this special situation.[5] A summary of the findings from the four studies completed in 1961-1962 follows:

OVERVIEW OF ATTITUDES

The various surveys conducted since 1950 (including the four described above) have been a rich source of information on attitudes and knowledge about civil defense, the probability and timing of war; perceived protection and adaptive behavior, nature of cold war, and attitudes about existing and potential shelter programs. This total group of studies indicate that, at the present time, the American population is evenly divided in its estimation of the chance of general nuclear war. One-third of the population regards general war as something very likely, one-third sees it as unlikely, and the balance is neutral, but slowly moving toward the view that war is unlikely. The opinion that general war is likely was held most widely in 1952 when 53% of the population felt this way. This portion has declined gradually so that in 1954 the percentage was 45%; in 1956, the percentage was 38%; in 1961, 35%; and in 1962, 26%.

While most Americans do not expect the outbreak of a thermonuclear war, a majority do fear continued cold war tensions with numerous small localized wars; and many of them think these small wars might escalate into nuclear war. In 1962 six out of every ten Americans in the sample felt that our entrance into a small war would probably lead to a big war. About 26% of the population feel that the most serious effects of an attack would occur where they live. Public perception of the effects of weapons has inflated during this same period to the point where all aspects of weapons effects

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[5] Community Attitudes and Action on the Fallout Shelter Issue, A Case Study of Two Communities. John Y. Lu, Leo G. Reeder, Robert J. Wolfson, C-E-I-R, Inc., Los Angeles Center, California. June 1963.

are exaggerated. But despite this exaggeration of the damage that would probably result from a nuclear attack, most Americans feel that the country would survive. In a recent survey only 10% agreed with the statement that an attack would destroy the morale of the United States so that it would be impossible to rebuild the country.

Few people believe that fallout shelters affect the chances of war. They are seen by Americans primarily as a defense measure that is useful only if an attack occurs. When asked how a nuclear attack on the United States could be made less damaging, a little more than one-third of the people spontaneously recommended fallout shelters.

Family fallout shelters are less popular than public shelters, and Americans in the sample place primary responsibility for these shelters on the Government rather than on themselves. Forty percent place responsibility for shelters on the Federal Government; 25% on local and State government; 25% on themselves; and 10% give mixed answers.

A very important result of our surveys is the clear indication that public attitudes about nuclear war disaster and civil defense are unstable. For example, we found that many members of a panel, interviewed in December 1961 and again in June 1962 had changed their opinions during this period of time and that there was no consistency in these changes. In one recent survey we asked some of the same types of questions at the beginning and end of a one-hour interview and found that just talking about the prospects of war and the need for civil defense changed some attitudes during the course of the interview. It appears that attitudes have not crystallized and that a major threatening cold war event could change public attitudes about the need for fallout shelters.

ACCEPTANCE OF NATIONAL SHELTER POLICY

One of our studies attempted to measure public acceptance of the present shelter policy. This survey indicated that most Americans are either satisfied with the government program or believe the government should do more. Between 40% and 50% believe the present program is just about right; between 20% and

30% believe the government should do more; between 10% and 20% believe the government is doing too much, between 10% and 20% did not express an opinion at all. When asked what the government should do, the most frequent response was that the government should build or provide fallout shelters. When asked what the government should quit doing, the most frequent responses were: (1) quit spending -- and wasting so much money on shelters; and (2) quit taking away responsibilities which belong either to the individual or the State and local government. Apparently this is the position taken by those who feel the government is doing too much.

Half the American public favors all four of the present government shelter programs (i.e., marking and provisioning, changing existing buildings, including space in new buildings, and providing financial help in the construction of shelters). Any given program was supported by more than two thirds of the respondents. The marking and provisioning program was the most popular of the four, with support from 85% of the respondents.

PERCEPTION OF TIMING AND NATURE OF WAR

It has been suggested that the public's predictions about the timing and nature of war would be a very important factor in attitudes toward shelters and civil defense. Various surveys have attempted to measure these beliefs.

In 1962 the studies indicate about one adult American in four believed there would be a nuclear war involving the United States within the next ten or twenty years. A second group of approximately one-half rejected the possibility of such a war, and a third group, the remaining quarter, did not express an opinion. About 20% of our sample estimated that a world war, if it comes, would start within two years. Forty-two percent said war is at least two years away, and 30% reiterated that they did not believe that war would come at all.

These three groups were compared with respect to knowledge, opinions and shelter plans. Those who believed that nuclear war was at least two years away were consistently more knowledgeable about radiation and shelters. On thirteen of fourteen items on which levels of knowledge were measured they were best informed of the three. The same group also held substantially more favorable

opinions about shelters and civil defense.[6] However, despite these distinguishing characteristics, they were no more likely than members of the other groups to have made plans for constructing family fallout shelters. On the three items of comparison -- knowledge, opinions, and shelter plans -- there was no discernable difference between those who thought war would come within two years and those who did not think war would come at all.

In our total sample, 70% of the respondents said they believed that bombs or missiles would fall on their community in case of attack. Another 18% said that bombs would fall in their part of the country. Ten percent said that their part of the country would escape direct attack.

The group which believed that bombs or missiles would strike their part of the country, but not their own community, was most knowledgeable about radiation and shelters. They were also most favorably inclined toward shelter construction. The proportion of respondents in this group who said they had not thought about building a shelter was smaller than it was for either of the two other categories.

There were significant differences between the two other groups. Those who expected their own communities to be hit had a higher opinion of civil defense than the respondents who thought their part of the country would escape direct attack. Fifty-four percent of the "my community will be hit" group admitted that they had not thought of building a shelter. The corresponding figure for the "my part of the country will escape" group was 60%.

FEASIBILITY OF PROTECTION AGAINST RADIATION

Many have postulated that perceptions of the feasibility of protection against radiation would be a very influential variable in general attitudes toward shelters and other civil defense programs. The survey indicates that those who thought they could do something

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[6] These items are contained in Table 1, p. 11 and Table 2, p. 13.

to protect themselves had an appreciably higher opinion of civil defense and were considerably more knowledgeable about the subject. They responded differently from the other group on every one of the fourteen information and eighteen opinion statements used in the study. Typically, the disparity was greater than 10%.

A respondent who thought he could do something to protect himself was also far more likely to have made plans for building a shelter. Fifteen percent of the "can protect" group said that they intended to construct a shelter. Only 4% of the "cannot protect" group said this. In addition, only 30% of the "can protect" admitted that they had not thought about shelters at all.

Some caution is necessary in interpreting the possible causal relationships suggested by these data. They do not permit conclusions as to whether: (1) people who believe they can help themselves are, therefore, more likely to develop more favorable plans and attitudes about shelters, or (2) people who learn and think more about building shelters are likely to convince themselves that they can protect themselves.

The causal direction of this relationship is a crucial piece of information to the development of an effective public information program, and further research of an experimental nature is required. These data do indicate, however, that a respondent's belief in the possibility of protection is highly related to his knowledge about, opinions toward, and plans to construct fallout shelters.

UTILITY OF SHELTERS

The public's appraisal of the utility of shelters as a means of protection appears to be a most important variable in the acceptance of civil defense programs. Our surveys indicate the public is almost evenly divided on the question of the utility of fallout shelters in case of an attack. Slightly more than half of all Americans believe that such shelters would provide some chance, or a very good chance, of avoiding radiation sickness where people live far enough away from the target to escape blast effects. When the question was asked in one of our surveys within the context of a belief of the President and the Secretary of Defense about the value of shelters, approximately

one-half said that shelters would save significant numbers of lives. The other half said the shelters wouldn't save significant numbers of lives, or didn't express an opinion.

In another of our samples, two-thirds of the respondents stated that they thought shelters would provide a "very good" or "some" chance of escaping serious radiation sickness, provided that people were far enough away from the target area to escape blast effects. Twenty-two percent said that shelters would provide "very little" or "no" chance of avoiding radiation.

The results of this analysis are similar to the previous comparison of those who thought they could or could not protect themselves. The level of knowledge was consistently and appreciably higher for those who thought shelters would help. We have avoided reproducing the many tables of data reported in our studies. Since two tables are involved in some of the analyses we are including them. The research design in one of the studies provided an opportunity to measure the accuracy of peoples' understanding of fourteen statements of fact taken from official Civil Defense publications (Table 1). Also included is a measure of favorability of beliefs on eighteen statements of opinion about radiation and fallout shelters (Table 2). The responses in percentages are listed on each table.

Table 1. Accuracy on 14 Statements of Fact Relevant to Nuclear Radiation and Fallout Shelters.

Statements of Fact	Responses (in percentages) Agree	Dis-agree	Don't Know	Total
1. If you get exposed to radiation at all, you are sure to die.	11	80	9	100%
2. Fallout from just one bomb may cover thousands of square miles	72	17	11	
3. There is a new pill you can take that will protect you against radioactive fallout.	5	64	31	

Table 1 (Cont'd)

Statements of Fact	Responses (in percentages) Agree	Dis-agree	Don't Know	Total
4. If someone has radiation sickness you should avoid getting near him so you won't catch it yourself.	18	60	22	100%
5. An atomic war would contaminate the water supply and almost everyone would die before the water was fit to drink again.	27	58	15	
6. An atomic war would destroy all food and ways of producing food, so you would die soon--even if you were protected by a shelter.	39	54	7	
7. A plastic suit with filtering mask is plenty of protection against fallout.	15	48	37	
8. Most fallout rapidly loses its power to harm people.	43	35	22	
9. After a nuclear attack, if you filter the dust out of the air, the air will be safe to breathe.	39	32	29	
10. The radioactivity after an attack would make the earth, or some areas of it, impossible to live in for years or even centuries.	48	31	21	
11. If we are attacked, great weather storms from the explosions would sweep the nation.	31	29	40	
12. A fallout shelter should have an air tight door to guard against radiation.	69	21	10	
13. Any adequate family shelter would cost at least three hundred dollars.	73	13	14	
14. You can not see fallout.	74	11	15	

As shown in Table 1, the two "easiest" items concerned the effects of radiation and diffusion of fallout. Eighty percent of the sample answered correctly by disagreeing with the statement that death is sure, given exposure to radiation. Seventy-two percent answered correctly by agreeing with the statement that fallout from just one bomb may cover thousands of square miles.

At the other end of the distribution, the two "hardest" items concerned the cost of a shelter and the visibility of fallout. Only 13 percent of the respondents accepted the statement that at least some adequate family shelters can be built for three hundred dollars or less. Only 11 percent disagreed with the incorrect statement that you cannot see fallout.

Table 1 documents the proportion of this sample of respondents who responded correctly to each informational item.

FAVORABILITY OF BELIEFS ABOUT RADIATION AND SHELTERS

An additional eighteen items were constructed to index public beliefs about radiation and shelters. A "favorable" belief was defined as one consistent with the development of a shelter program.

Table 2. Favorability of Beliefs on 18 Statements of Opinion Relevant to Nuclear Radiation and Fallout Shelters.

Statements of Opinion	Responses (in percentages) Agree	Dis-agree	Don't Know	Total
1. Building a shelter is like hiding in a hole--only a coward would do it.	7	90	3	100%
2. It is a person's duty to try to live as long as he or she can.	89	8	3	
3. An attack would destroy the morale of the U.S. so much that it would not be possible to rebuild the country.	11	85	4	
4. Building a shelter is wrong in the eyes of God.	7	83	10	

Statements of Opinion	Responses (in percentages) Agree	Dis-agree	Don't Know	Total
5. It would take a little while after an attack, but law and order would be restored.	79	14	7	100%
6. If we build shelters for everyone, war will be more likely to happen.	16	75	9	
7. If a person builds a family shelter, his neighbors and friends probably will laugh at him or think he is crazy.	24	70	6	
8. After an attack, life would be such a savage man-to-man struggle that it wouldn't be worth living through.	27	66	7	
9. There isn't any safe way to live in this world any more, so it's just a question of what chances or risks we want to take.	27	66	7	
10. I wouldn't want to live through an attack if I knew most of my friends and neighbors were dead.	30	64	6	
11. Most people have the space to put in a shelter if they really want one.	64	30	5	
12. Scientists don't understand things well enough to make predictions that we can rely on.	31	59	10	
13. The ending or saving of the world is up to the will of God. Man can't protect himself.	35	57	8	
14. Parents have a duty to protect their children by building a fallout shelter.	52	37	11	
15. A person who builds a shelter now will be respected by his neighbors.	32	51	17	

Statements of Opinion	Responses (in percentages) Agree	Dis-agree	Don't Know	Total
16. If an attack comes, a person with a shelter will have to protect it from neighbors who will try to break in.	59	30	11	100%
17. Living in a shelter for a long period of time would drive many people insane.	64	29	7	
18. Shelters cost more than most families can afford.	67	25	9	

In this summary we will call attention to some of the more salient factors concerning levels of knowledge and beliefs. For two of the information items (contamination of the water supply and destruction of ways of producing food) the percentage of correct answers for the "shelter help" group was almost twice as high as it was for the "shelters don't help" group. The data revealed quite clearly that people who believe shelters would help are significantly more knowledgeable about the effects of nuclear radiation.

Analysis of opinion statements produced the same kind of result. The "shelters help" group was more favorable on all 18 items. The two groups did not differ significantly in their beliefs about whether a person has a duty to try to live as long as he can (both groups agreed quite strongly) or about whether shelter owners will have to protect their shelters against their neighbors (approximately 70% of both groups also agreed with this). On every other opinion item, however, the "shelters help" group had a significantly more favorable attitude.

Predictably, the two groups also differed with respect to their plans for building a shelter. Of the "shelters help" group, 10% said they had plans to build a shelter--as compared to only 3% of the "shelters don't help" group. Correspondingly, less than half of the "shelters will help" group said they had not thought about building a shelter, compared to more than two-thirds of the "don't help" group.

RELATIONSHIPS AMONG ATTITUDES

What are the more salient variables relating to public acceptance of the program? Is it possible from the findings to develop a profile of maximum and minimum receptivity to shelters and other civil defense measures? The major variable of interest to those responsible for developing the shelter program is the public's acceptance of the utility of shelters. The studies found that public belief in both the probability of war and the utility of shelters was related to acceptance of shelters. However, it was clear that the crucial variable was the utility of shelters, not the probability of war. In other words, people who believe that there will be a war are only slightly more likely to favor the government's shelter program, while people who believe that shelter will help are much more likely to favor such programs. There was no observed relationship between an individual's opinion about the likelihood of war and his belief or disbelief in the utility of shelters.

The foregoing data suggest profiles of the most receptive and least receptive audiences for civil defense messages. It was common for those most receptive toward shelters to: (1) believe that war may be likely, but that it will not begin for at least two years; (2) believe that if there is a war, bombs will fall in their part of the country, but not on their own community; (3) believe that there is something they can do now to protect themselves against nuclear radiation and that shelters would help. This group was best informed about nuclear radiation and fallout shelters, and was most favorably inclined toward civil defense.

It was common for those least receptive toward shelters to: (1) believe that war is unlikely, but that it will start within two years if it ever does; (2) believe that bombs would fall either in their own communities or else nowhere in their area of the country; (3) believe that there is nothing they can do to protect themselves against radiation effects and that shelters would not help.

There is no apparent relationship between a person's estimation of the chance of war, the timing of an attack, and the target areas, on the one hand, and the likelihood that he plans to build a shelter, on the other. There is, however, a correlation between shelter planning and opinions about the feasibility of protection against radiation. People who believed there was something they could do, and that shelters were a part of that something, were significantly more likely to be planning to build shelters.

have expected that both perceived need for shelters

One mig[illegible] and location of attack) and the perceived value of (likelihood, tim[illegible]ated to shelter knowledge and opinions. The shelters would be[illegible]ed was not related as strongly as perceived fact that perceived [illegible]s the hypothesis that perceptions of need value tentatively suppo[illegible]fe[illegible]ntly as behavioral predictors. Such and value operate quite [illegible]rceived need would be required before a hypothesis suggests that [illegible]rable attitudes into actual shelter- people would translate their [illegible]havior. building or shelter-supporting

[illegible]n in attributing causal effects It is important to exercise ca[illegible]y of shelters. However, to our respondents' opinions about the t[illegible]rams should emphasize the data suggest that shelter information p[illegible] testing is needed the utility of shelters as a major theme. Furth[illegible] the utility to increase confidence in the hypothesis that the be[illegible] a shelter of shelters is a crucial variable in predicting acceptance[illegible]nce program. In any case, the relatively low level of public confi[illegible] in the utility of shelters reflected in attitudinal studies indicates that the public information program should emphasize the utility of shelters.

This year's research supports previous evidence that public knowledge and opinion are highly uncertain and unstructured in the civil defense area. Further, that we can expect knowledge and opinion levels to change somewhat erratically for a time, and public information programs are likely to have a significant effect on attitudes and knowledge levels.

DEMOGRAPHIC VARIABLES

Normally in survey research such demographic variables as age, social class, role in the home, parental status, education, religion and home ownership account for variations in attitudes. As we shall see our surveys indicate the variable age, education, and family status are the important variable in civil defense attitudes.

Age seems to be the most important demographic variable influencing a person's attitude toward civil defense. Young citizens are much more likely to believe in the utility of fallout shelters. The age, fifty, is the apparent turning point: people old[illegible] than that

are significantly less convinced of the value of shelters. They are also less likely to support existing or proposed government civil defense programs.

People over 50 responded least often that there is a good chance of war or that we are moving in the direction of armed conflict. It was somewhat more common, however, for them to believe that if war comes, it will start in two years or less. Similarly, older people were more likely to think that bombs would fall on their own communities -- or that they wouldn't fall anywhere in their part of the country. People under 35 believed more often that bombs would fall in their own part of the country.

The older the respondent, the less likely he was to believe that he could do something to protect himself against blast, fire or fallout. An older person was also less likely, however, to believe that he would be killed or made sick by fallout. A small portion of older respondents had plans for building a shelter, or had even considered such a project. Only 40% of those under 35 said they hadn't thought about building a shelter, whereas 70% of the respondents over 50 gave this answer.

The "over 50" group knew least about each of the 14 information items and responded least favorably to most of the 18 attitudinal statements. The two younger age groups were similar in their knowledge and attitudes; however, the youngest age group knew somewhat more and were somewhat more favorably inclined toward civil defense.

With respect to favorability toward attitudinal items the groups did not differ in their belief that it is a person's duty to survive as long as he can. Nor did they differ in their conviction that law and order could be restored eventually after an attack. All groups had similar opinions about a parent's duty to protect his children with a shelter and the response a shelter builder would get from his neighbors. Finally, the youngest group actually was slightly less likely to believe that a shelter owner could avoid the necessity of protecting his shelter against his neighbors. Other than the exceptions noted, however, there was a consistent relationship between age and responses. The younger the respondent, the more he was likely to know about radiation and civil defense, and was likely

to be receptive to civil defense. In addition, young people were more optimistic about their chances of protecting themselves.

Another important determinant of an individual's shelter attitudes seems to be his socio-economic position. Members of a higher social class were more likely to believe in the utility of shelters, but they were also more likely to think that the government ought to do less about civil defense. It was the respondents in lower socio-economic groups who believed most often that the government program was not large enough. These results were not confirmed by the C-E-I study which indicated no significant relationship between attitudes toward civil defense and socio-economic levels.

In relation to the respondents' role in the home, it was generally found that male heads of households were the most optimistic. They were less likely to believe war is imminent, less likely to believe that bombs would fall in their community, more likely to believe that they could do something now to protect themselves, and less likely to believe that they would be killed or injured by blast, fire or fallout. Female heads of families were minimally optimistic about the value of shelters, and had thought less about building them. Male heads of families and wives responded similarly and were more favorable on our eighteen attitudinal questions than were female heads of households. Men also knew more than either of the two female groups, and wives knew somewhat more than female heads of families. Females were more favorable on two attitudinal items. One related to the parent-child responsibility for shelters. The other dealt with the social consequences of building a shelter, such as the likelihood of ridicule by one's neighbors and friends.

Parental status was another demographic variable that was significantly related to attitudes toward nuclear war and civil defense. To obtain this data we separated the respondents who had children living at home (59%) from the 17% whose children had left home and the 24% who had no children at all.

Opinions about the utility of shelters were no different for respondents with children at home and those without any children. Both groups, however, were more optimistic about the value of

shelters than the "child gone" group. People with children at home were most likely to have plans for constructing a shelter and least likely to say that they had not even considered building one. At the other extreme the group whose children had left home were least likely to have plans for building a shelter or to have considered the possibility. Only 44% of the "child home" group had given the matter no thought; for the "child gone" group the corresponding figure was 72%.

The three groups did not differ in their estimates of the likelihood of war. The "child gone" group was somewhat more likely to believe that war would come within two years if it comes at all, and somewhat less likely to believe that we were moving toward peace. Those with children at home were most likely to feel that they could do something to protect themselves against fire, blast or fallout. People whose children had left home were least optimistic about their ability to protect themselves.

Those with children at home and those without children knew substantially the same amount about radiation and fallout. Both groups knew significantly more than the "child-gone" group. Similarly, the "no-child" and "child-home" group did not differ appreciably in the favorability of their attitude on the 18 opinion statements, but both groups were significantly more favorable than the "child-gone" group on most of the statements. The three groups did not differ in their beliefs about whether (1) a person has a duty to try and live, (2) neighbors and friends will laugh at a shelter builder or think he is crazy, (3) parents have a duty to protect their children with a shelter, (4) the shelter builder will be respected by his neighbors, (5) a person with a shelter will have to protect it from neighbors.

Respondents with only an elementary education had distinctively unfavorable attitudes toward civil defense. In addition, they were least well informed about shelters and least likely to believe that they could protect themselves or that shelters would be of any help. Though optimistic about the chance that their part of the country would escape attack, they were most pessimistic about the likelihood of war and expected it to begin sooner than any other group.

There were correlations between higher levels of education and certain opinions about shelters and war. But it was the low education group that had by far the most consistent set of attitudes.

The distinction between home owners and renters was not as significant as we had expected. Those who owned their own homes were somewhat more likely to think that bombs would fall in their own communities and believed more often that they could do something to protect against fallout. They were also more likely to have plans for building shelters, more likely to have thought about shelters, and much more likely to believe that most people have sufficient home space to install a shelter.

There was nothing distinctive, however, in the opinions of either group about the utility of shelters, the likelihood and timing of an attack, or their chance of avoiding injury or death. Nor was home ownership a significant variable for knowledge about radiation or attitudes toward fallout shelters.

DEMOGRAPHIC PROFILES OF RECEPTIVITY

These analyses permit us to construct demographic profiles of the most receptive and least receptive audiences for civil defense messages. The maximally receptive are: (1) males under 35 years of age, (2) people with education beyond elementary school, and (3) people with children living at home or with no children at all. Respondents with this combination of demographic characteristics knew more about nuclear radiation and fallout shelters and had more favorable opinions about things related to civil defense

The minimally receptive are: (1) both males and females over 50 years of age, (2) females who are heads of households, (3) individuals with no more than an elementary education, and (4) adults whose children have left home.

The most significant predictive variable was age. Quite consistently, the older the respondent, the less he favored civil defense. The other variables mentioned, though significant predictors of knowledge and attitudes, did not discriminate as clearly or as consistently. We did not find knowledge and attitudes to be particularly related to home ownership or to religious or political preferences.

The responsibility that a parent feels to his child and his acceptance or denial of a duty to prolong his own life appear to influence his opinions about civil defense. Appeals to the parent to protect his child, and appeals to the individual to fulfill his duty to live, seem to be universally attractive, with two exceptions: (a) women are less impressed than men with parental duty to protect the child and (b) less educated people are more impressed with the individual's duty to live as long as he can.

IMPACT OF INTERNATIONAL CRISIS ON ATTITUDES AND BEHAVIOR.

Earlier in the report, we indicated that there is only a slight correlation between views on the probability of war and favorability of attitudes toward shelters. We have also suggested that the attitudes are not crystallized and may be unstable; that knowledge and opinion levels might be expected to change erratically at times. It is postulated that major promotional programs or new perceptions of the threat of war, possibly generated by international crises, could cause shifts in attitudes. What evidence do we have that might suggest the likely impact of future crises on shelter attitudes?

Obviously, the fluctuation of public responses to crises depends upon the fluctuation of the crises, themselves. It is probably wise, therefore, to consider the pattern of the crises that alter shelter attitudes. The Hudson Institute attempted to trace such crisis patterns in its recent report, "Strategic and Tactical Aspects of Civil Defense with Special Emphasis on Crisis Situations." The report includes a "fever chart" (Figure 1) [7] of tensions, which represents crises as spikes on the curve, sharp rises in tensions followed by similarly sharp declines.

Given the assumption that past responses will be duplicated in the future, we would like to discover whether these peaks of tension tend to fortify existing public attitude toward civil defense or whether they tend to erode them away. Certain relationships between public attitudes and international tensions are obvious to anyone working in civil defense. As the possibility of the use of force to settle disputes

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[7] Strategic and Tactical Aspects of Civil Defense with Special Emphasis on Crises Situations. Chapter 4, page 1-3.

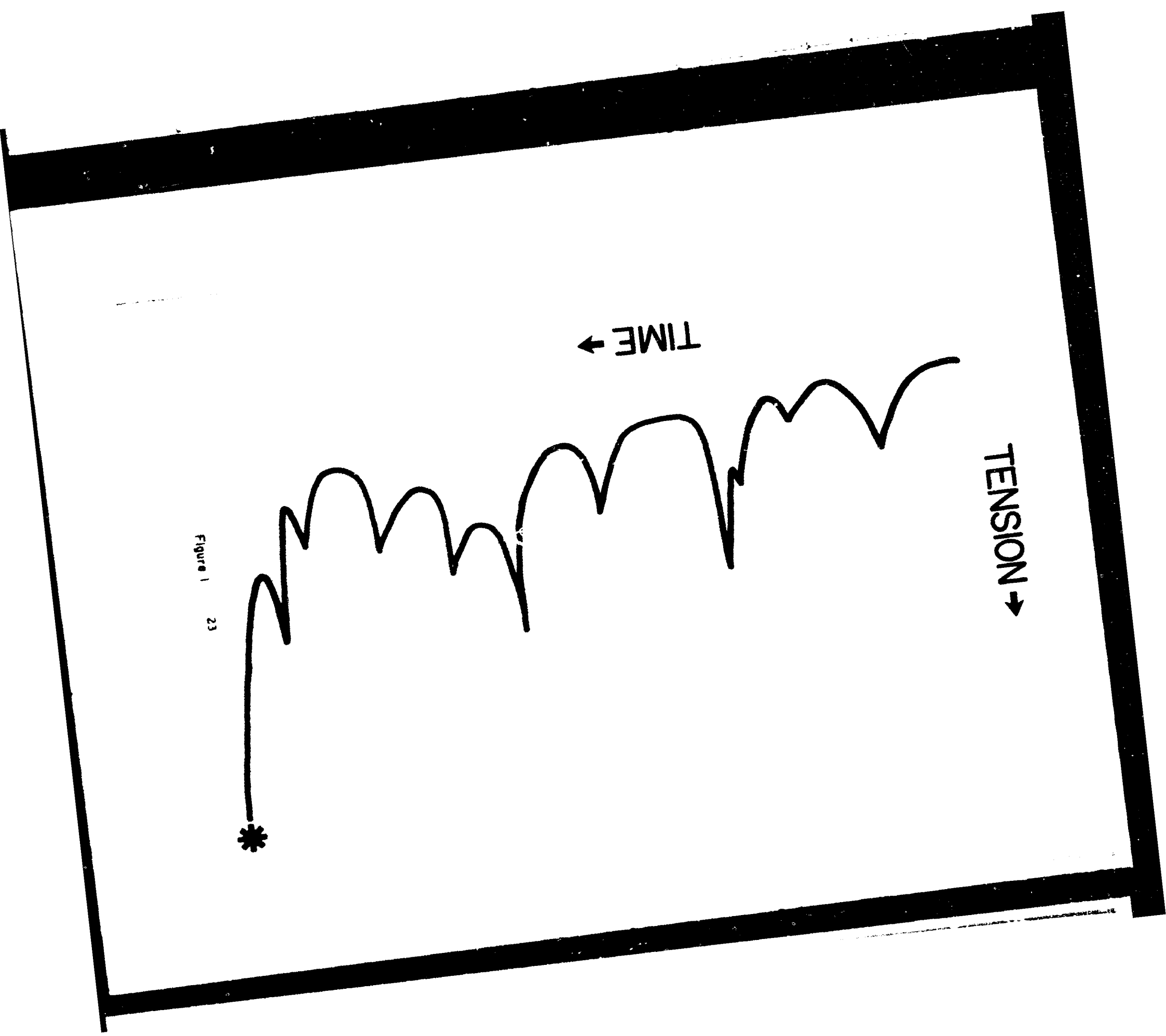

Figure 1 23

becomes stressful to the population, there is increased discussion and debate about civil defense. Telephone inquiries, mail, speaking requests, and other expressions of public interest vary from a few hundred a month in the non-crisis periods tc thousands a day during and immediately after periods of heightened tension.

The civil defense worker is likely to suspect that there are simultaneous changes in the public's expectation of war and its support for civil defense programs. Statistical data are necessary to confirm these suspicions. Unfortunately, available data specifically related to this subject are quite limited. Although we have been conducting attitude studies over the past ten years, few of them have occurred during periods of high international tension.

CRISIS RESEARCH

We have four studies which provide some preliminary insight into the way perceptions of an increased threat of war generate higher levels of tension, which in turn change public attitudes. These include a small community study in Austin, Texas, in which the data were gathered during the middle of September and October 1961.[8]

A national opinion study was conducted at the same time by the Survey Research Center of the University of Michigan.[9] The interviewers went into the field immediately after the death of Dag Hammarskjold, with its attendant U. N. Crisis over the Secretariat and Congo policy. The Berlin Crisis was just past its height, and the Soviet was exploding huge thermonuclear devices in Central Asia, having resumed nuclear testing at the beginning of September. We are aware of a number of local surveys during this period but the samples were so small the results cannot be generalized to the total population.

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[8] Attitudes and Knowledge Concerning Fallout Shelters in Austin, Texas, by Harry Estill Moore.

[9] The U.S. and the U.S.S.R. A Report on Public Perspectives on the United States - Russian Relations in late 1961. Stephen B. Withey, Survey Research Center, University of Michigan.

Two studies mentioned earlier, the University of Pittsburgh and C-E-I-R surveys (Footnotes 4 and 5) have yielded the best information about the impact of crises on public attitudes. Their data, gathered at the height of the Cuban crisis, have also provided a system for comparing attitudes before the crisis and afterwards. In the case of the C-E-I-R study, we were able to reinterview after the President's "Quarantine" speech some people who had already been interviewed beforehand. Our generalizations are taken largely from these two studies.

COLD WAR EXPECTATIONS

The University of Pittsburgh survey, "The Cuban Crisis: Meaning and Impact" should not be considered as an isolated study but as one of a series relating to possible cold war outcomes. The study was a part of a basic research effort undertaken to develop methods of comparing the impacts of actual and anticipated events. The research methodology has been tested and used to measure attitude changes caused by international political developments. The basic instruments employed in the study of the Cuban Crisis were used during the last three years to investigate opinions among various groups about thirty-five possible cold war events under an Air Force contract. Respondents included American and foreign university students, and legislators in Brazil, Finland, France, Germany, India, Japan and Spain. Studies were carried out in rural Arkansas, Canada, Puerto Rico, and the Virgin Islands. Most of the questions included in the Cuban crisis study had been used in all the above mentioned studies. The results of these various surveys conducted over three years in the various States, and among the various groups mentioned were highly consistent with each other.

We mention this to indicate that we had a basis for assuming the attitudes of the students interviewed prior to the Cuban crisis. In a very real sense the Pittsburgh Sociology Department was "ready" when the Cuban crisis peaked on Monday evening, October 22, 1962.

The specific research purpose was to measure the impact of the Cuban Crisis upon expectations and desires regarding the cold war. The contractor was also concerned with the impact of the Cuban Crisis upon expectations and desires relating to "Berlin" and disarmament. The University developed additional questions to measure expectations about future civil defense programs and probable outcomes of the Cuban crisis. Their questionnaire was administered to about 320 people, most of whom were high school and college students. A limited group of "follow-up" interviews were conducted two weeks later. Studies were also begun in Spain and Arkansas. The sample was quite small. But three years of research indicate that national boundaries and the passage of time do not alter substantially cold war expectations and desires. For that reason we feel safe in our assumption that departures from prior data patterns are attributable to the Cuban Crisis.

The Pittsburgh high school and college students who were interviewed reported sharply higher perceived international tensions immediately after the President's speech. On a ten point scale, the high school students indicated an average tension level of 9.39, a substantial increase from the average figure of 6.29 assigned to the situation that had existed two years previously. The corresponding figures for the college students were 9.16 and 6.36. Neither group expected tensions to subside to their former level during the next five years.

By early November, when the researchers conducted their "follow-up" interviews, the perceptions of current tensions had declined to levels which they found consistent with observations in 1960, 1961, and 1962. In the college group, the average tension level had moved from 9.16 during the acute crisis period (i.e., before the Soviet response was known) to 6.62 by the first week in November. In the high school group the figure changed from 9.39 to 7.66. Thus, only a few weeks later, the respondents' perceptions had returned to a modicum of normality -- as if the crisis had never taken place.

In response to questions about the probable future of the cold war, the students indicated similar alarm. In 1959 a group of American students had rated the maintenance of the status quo as

the most likely of 35 courses the cold war might follow until 1965-1966. The eruption of WW III was only the twelfth or thirteenth among the possible outcomes. Three years later, in the midst of the Cuban crisis, a third world war replaced the status quo as the outcome that the high school considered most likely. Its probability rating rose from one chance in three to almost 80%. Among college students, only limited wars and anti-communist revolutions were considered more likely than WW III, which received an average probability rating of .545.

The respondents were reinterviewed during the first week of November when it was public knowledge that the Soviets had decided to withdraw their offensive weapons systems from Cuba. At this time the perceived probability of war had declined to its pre-crisis level. It was only .291 among the college students and had shifted from .747 to .516 among high school respondents. The contractor's research during the U-2 incident of 1960 yielded similar conclusions. The perceived levels of tension were greatly increased; expectations of war rose sharply; and anticipations of peaceable resolutions for world conflicts declined. A few months later, hardly any respondents (in Brazil, Finland, India, Spain, Germany and France) referred to the crisis.[10]

SHELTER AND CIVIL DEFENSE EXPECTATIONS

Against this background of extreme anxiety about the cold war, the student respondents expressed a strong desire for accelerated civil defense activity. The existing government program had satisfied half the respondents in earlier surveys, conducted when the international situation was comparatively calm. At the time only a quarter of the group had wanted the government to do more. Now in the midst of a crisis situation, all hypothetical civil defense policies which received substantial support involved vigorous, accelerated shelter construction programs. The maintenance of the present civil defense posture was rated the least desirable of eighteen possible alternatives by both high school and college students.

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[10] Jiri Nehnevajsa, "Effects of the U-2 Incident," AFOSR TN-60-1357A, October 10, 1960, p. 40; "Further Analysis of the U-2 Incident," AFOSR, TN-60-1357B, October 1960, p. 36; "The Effects of an Event: The U-2 and Aftermath," presented at the meetings of the American Sociological Association in St. Louis, August 31-September 2, 1961.

Although the respondents would have welcomed a termination of the cold war that dispensed with any need for civil defense, they thought this was a highly improbable outcome.

Community shelters were a great deal more popular than private, family installations; and there was little recorded enthusiasm for any laws requiring communities or private individuals to construct shelters. The student thought well of government assistance to shelter builders, however. Eliminating from consideration the improbable "reconciliation" and "disarmament" alternatives, the most popular programs were: (1) construction of school shelters for students and employees, (2) placement of shelters in public areas where many people work and shop, and (3) construction of shelters in industrial buildings.

The early November interviews indicated that the desirability of alternative civil defense programs had not changed drastically. School shelters remained highly desirable in all respondent groups, as did shelters in public areas, and in industrial establishments. As before, the status quo in civil defense was the least wanted alternative. On the other hand, the change in climate was somewhat evident in the "likelihood" estimates: in contrast with the acute crisis data, the November interviews revealed an increased probability of civil defense status quo; from .572 to .609 in the college group; from .579 to .653 among the high school seniors. Thus, although the status quo remained undesirable even after the crisis subsided, it was accorded a higher probability.

Considering these results in connection with the results pertaining to expectations of WW III, we are led to the conclusion that civil defense programs (other than the "status quo") are considered rather desirable, and that they remain desirable even though the probability of war has declined.

EFFECTS OF CRISES ON COMMUNITY CIVIL DEFENSE PROGRAMS

The students interviewed by the University of Pittsburgh group were, of course, in a poor position to match their concern about the future with effective activity on behalf of a shelter building program. The C-E-I-R study of a West Coast city during the Cuban Crisis,

came in the midst of a desultory public debate over the construction of a proposed community shelter system, to be financed by a special real estate tax. The sudden burst of interest in the proposal and the ensuing indifference when international tensions subsided indicate an important relationship between the level of international tensions and the prospects of a community civil defense program.

The fluctuation of interest in the shelter program is, in fact, a fair facsimile of a fever chart of international relations. During the Berlin Crisis of August 1961, a citizens' action group obtained 3,700 signatures (half the number of registered voters) for a petition urging the city council to consider a shelter system. The local governing body, requested a technical study of shelter construction. But by April 1962, when the report was finished, the Berlin dispute was no longer acute. And the local governing body never bothered to call a public meeting to consider the report.

Six months later, however, after President Kennedy announced the quarantine of Cuba, the local residents renewed their interest in civil defense. The delayed public meeting was scheduled. Meanwhile a civil defense action group opened its fallout shelter for public inspection.

Between the period of the Cuban crisis and the following February, civil defense was the most important local public issue. The newspaper carried frequent front page stories on the subject, including a summary of the technical report. Attendance was always high at public meetings to discuss shelters; ninety-two people participated in a day-and-a-half test of a sample fallout shelter.

In December the Mayor promised to recommend action if 70% of the property owners signed a petition to establish an assessment district for a community shelter. A Citizen's Committee on Public Fallout Shelters had offered to circulate the petitions for the council. But first they wanted to clarify the method by which the city would finance the shelter program. By the time they were ready, public interest in civil defense had subsided.

The supporters of the local shelter plan met opposition from two separate groups: (1) local residents who resisted civil defense

for ideological reasons, and (2) real estate developers who lived outside the local area, owned a large portion of the available land, and would have paid a disproportionate share of the shelter cost. The two groups united to circulate a petition opposing the shelter program. The developers' opposition was particularly damaging, because in this local area an individual's vote on an assessment district is weighed in proportion to his property holdings.

By the middle of February, with the Cuban Crisis four months behind them, the local residents turned their minds to other matters. Patriotism in the classroom replaced civil defense as the most important public issue; and the local newspapers ceased to carry news stories or letters to the editor about shelters. The petition was never circulated.

FURTHER STATISTICAL CONFIRMATION FROM C-E-I-R STUDY

The C-E-I-R study also collected statistical evidence which confirms the impact that the Cuban crisis seems to have had on civil defense attitudes. A group of 199 people who had been interviewed already were re-interviewed after the critical week. Beforehand 66% of them had supported a community shelter; now 75% favored such a program. The figures for private shelters followed a similar pattern; 36% in favor before the crisis, 45% in favor afterwards.

In addition, the sample for this local study was divided into three groups: (1) those interviewed before the crisis, (2) those interviewed between October 23 and October 28, and (3) those interviewed after October 28. The results indicate steadily increasing support for community shelters -- with 63% approval in group #1, 66% in group #2, and 71% in group #3. Support for the concept of private shelters on the other hand, rose from 35% to 43% and then declined back to 37%. Unfortunately the statistical survey did not continue long enough to measure any eventual loss of enthusiasm for a community shelter.

The statistics for respondents who took no firm position on the shelter issue are particularly striking. For community shelters, 5% of group #1 was in the "don't know" category, 8% of group #2, and only 3% of group #3. For private shelters, the corresponding figures were 9% (group #1), 15%(group #2), and 2% (group #3). There was a similar change in the proportion of the re interviewed group which had no definite attitude toward civil defense. Before the crisis, 5% of the group was uncertain about community shelters, and 8% responded that way to the concept of private shelters. These percentages declined after the crisis to only 1% and 2%, respectively.

This suggests that the first response to an international crisis is confusion and uncertainty about the proper civil defense policy. But in the immediate aftermath when civil defense becomes a prominent community issue, public opinion is mobilized, and few people are left without definite opinions about shelters. It is also significant that civil defense supporters were the principal beneficiaries from the decline in unmobilized opinion.

DISCUSSION OF IMPLICATIONS

We are still evaluating the complete range of implications of this year's studies in order to assess their importance to future planning. The following is a summary of some of the more salient implications as we see them at this time.

1. Public Attitudes.

Prevailing public attitudes are favorable but not intense. Very few people are extremely unfavorable. The fact that only about half the people believe that the shelters would help in case of war, and the close relationship between this belief and approval of the present program suggest that one of the major communications objectives of civil defense should be to increase public acceptance of the utility of shelters.

2. Specific Target Audiences and Themes.

The young, negroes, and members of lower socio-economic groups have the highest opinion of civil defense. Citizens over 50 years of age and members of higher socio-economic levels are least receptive. In the local community older citizens in a higher socio-economic position share a major role in any decision processes on shelter or other civil defense measures. If the value of shelters is to be accepted as given, further work is needed with this group to determine the sources of their negative attitudes toward shelters. An attempt must be made to develop evidence and arguments which will be of value in changing these negative attitudes.

Although people with children are for the most part predisposed in favor of shelters, they might become more active supporters of civil defense if information programs emphasized a parent's duty to protect his children with shelters. This is a theme that seems acceptable to all groups and might be used in connection with the school shelter program. During the coming year we plan to explore in depth this particular area of audience response.

3. Relationship between fear of war, belief in the utility of shelters and approval of the shelter programs.

The studies found that belief in the utility of shelters was the important predictor of the approval of shelter programs. The relationship among the three variables (fear of war, belief in utility of shelters and approval of shelter programs) is best explained in the context of the distinction between attitudes toward the adoption of the practice and actual adoption of the practice. While research on this question is needed, it is possible to argue that favorability toward shelter programs, and attitudes toward adoption, are determined primarily by belief in the utility of shelters -- not in the probability of war. On the other hand, the actual adoption practice, the building of the shelter, probably depends in large part on one's belief in the probability of war or the imminence of the danger. In short, one could argue that people will approve of shelters if they are convinced that they would help, but will not build them until they believe that they will need them.

If there is merit in this argument, it raises an important implication for the agency's communication programming. For ethical, as well as policy reasons, we do not want deliberately to raise a war scare among the people. We can, and probably should, continue to suggest that shelters would help in such an emergency. Given these two assumptions, it follows that civil defense communication strategy should include emphasis on the continuing utility of shelters during times of minimal international stress. Civil Defense should suggest methods and techniques of constructing, preparing, and living in shelters during periods of severe international crises.